

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-16. (Canceled)

17. (Currently Amended) ~~The~~ A manufacturing method of a semiconductor device ~~according to claim 16, comprising the steps of:~~

carrying a substrate into a reaction chamber;

processing the substrate by feeding a first source gas obtained by vaporizing a first source which is prepared by mixing plural kinds of liquid sources, and a second source gas obtained by vaporizing a second source which is prepared by mixing plural kinds of liquid sources at a mixing ratio different from that of the first source, or composed of one kind of liquid source to the substrate; and

carrying the substrate after processing out of the reaction chamber,

wherein the plural kinds of liquid sources constituting the first source are a Hf liquid source and a Si liquid source, the one kind of liquid source constituting the second source is either of the Hf liquid source or the Si liquid source, and the process means to form a Hf silicate film; and

~~wherein~~ a mixing ratio of the Si liquid source and the Hf liquid source in the first source (Si liquid source/Hf liquid source) is set to be in the range of from 100 to 1000.

18. (Currently Amended) ~~The~~ A manufacturing method of a semiconductor device ~~according to claim 16, wherein~~ comprising the steps of:

carrying a substrate into a reaction chamber;

processing the substrate by feeding a first source gas obtained by vaporizing a first source which is prepared by mixing plural kinds of liquid sources, and a second source gas obtained by vaporizing a second source which is prepared by mixing plural kinds of

liquid sources at a mixing ratio different from that of the first source, or composed of one kind of liquid source to the substrate; and

carrying the substrate after processing out of the reaction chamber,

wherein the plural kinds of liquid sources constituting the first source are a Hf liquid source and a Si liquid source, the one kind of liquid source constituting the second source is either of the Hf liquid source or the Si liquid source, and the process means to form a Hf silicate film; and

a composition ratio $\text{Hf}/(\text{Hf} + \text{Si})$ of the Hf silicate film formed on the substrate is controlled in a depth direction in the range of from 0.1 to 1.0, by changing a supply flow rate of the first source and/or second source in the step of processing the substrate.

19. (Original) The manufacturing method of a semiconductor device according to claim 18, further comprising the step of performing a nitriding process for the Hf silicate film formed in the step of processing the substrate.

20. (Withdrawn) A substrate processing apparatus, comprising:

a reaction chamber for processing a substrate;

a first tank for housing a first source prepared by mixing plural kinds of liquid sources;

a second tank for housing a second source prepared by mixing the plural kinds of liquid sources at a mixing ratio different from that of the first source, or composed of one kind of liquid source;

a first liquid flow rate controller that controls a liquid flow rate of the first source;

a second liquid flow rate controller that controls the liquid flow rate of the second source;

a first vaporizer that vaporizes a flow rate-controlled first source;

a second vaporizer that vaporizes a flow rate-controlled second source; and
a feed port that feeds the first source gas and second source gas obtained by vaporization, to the reaction chamber.

21. (Withdrawn) The substrate processing apparatus according to claim 20, comprising a controller that controls to change a set value of the first liquid flow rate controller and/or the second liquid flow rate controller during processing the substrate.